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Flying Operations

OPERATIONS SUPERVISION

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This instruction implements AFPD 11-4, *Aviation Service*. It establishes the responsibilities, requirements, procedures and training for the supervision of flying operations. This instruction applies to all Air Combat Command (ACC), Air Education Training Command (AETC), Pacific Air Forces (PACAF), United States Air Forces in Europe (USAFE), Air National Guard (ANG) and Air Force Reserve Command (AFRC) flying units. This instruction does not apply to the United States Air Force (USAF) Aerial Demonstration Team (Thunderbirds) and Unmanned Aerial Vehicle Squadrons. Send comments and suggested improvements to this publication on AF Form 847, **Recommendation for Change of Publication**, through channels, to HQ ACC/XOFT, 205 Dodd Blvd, Suite 101, Langley AFB VA 23665-2789. Maintain and dispose of all records created as a result of processes prescribed in this instruction according to AFMAN 37-139, *Records Disposition Schedule*.

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Submit suggested improvements to this instruction on AF Form 847, **Recommendation for Change of Publication**, through local standardization/evaluation (stan/eval) channels to HQ AETC/DOF, 1 F Street Suite 2, Randolph AFB TX 78150-4325. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule* (will become AFMAN 33-322, Volume 4). This supplement does not apply to Air National Guard and Air Force Reserve Command units.

1.	General.	3
2.	Operations Supervisors:	3
3.	Supervision of Flying Operations.	3
Гable 1.	Minimum Flying Unit Supervision Requirements.	5
Гable 1.		5

_	Responsibilities of Supervisors:	
5.	Responsibilities of Other Key Unit Personnel:	
6.	Handling of In-Flight Emergencies:	
7.	CONFERENCE HOTEL Aircraft Specific Procedures:	
8.	SOF/ATC Relationship:	
9.	Duty Hours:	
10.	SOF Duty Location:	
11.	SOF Equipment:	
12.	SOF Qualifications:	
13.	SOF Currency/Recurrency.	
14.	SOF Upgrade Program:	
15.	SOF Continuation Training (CT):	
16.	Provisions for Smaller Than Wing-Sized Units.	
17.	SOF Program Administration:	
18.	Unit Supplement:	
19.	Waivers.	
Attachmer	t 1— GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION	
Attachmer	t 2— SOF PROCEDURAL/EMERGENCY CHECKLIST	
Attachmer	t 3— SUPERVISOR OF FLYING CHECKLIST GUIDE	
	t 3— SUPERVISOR OF FLYING CHECKLIST GUIDE t 4— CONFERENCE HOTEL PROCEDURES	
Attachmer		
Attachmer Attachmer	t 4— CONFERENCE HOTEL PROCEDURES	
Attachmer Attachmer Attachmer	t 4— CONFERENCE HOTEL PROCEDURES t 5 (Added) (AETC)—INDEX OF THERMAL STRESS (ITS)	
Attachmer Attachmer Attachmer Attachmer	t 4— CONFERENCE HOTEL PROCEDURES t 5 (Added) (AETC)—INDEX OF THERMAL STRESS (ITS) t 6 (Added) (AETC)—CHILL INDEX	
Attachmer Attachmer Attachmer Attachmer	t 4— CONFERENCE HOTEL PROCEDURES t 5 (Added) (AETC)—INDEX OF THERMAL STRESS (ITS) t 6 (Added) (AETC)—CHILL INDEX t 7 (Added) (AETC)—AETC SOF TELEPHONE NUMBERS t 8 (Added) (AETC)—SQUADRON DUTY DESK EQUIPMENT LIST	

1. General. The basic supervision structure for flying operations consists of the Operations Group Commander (OG/CC), the Supervisor of Flying (SOF) and the squadron supervisors, i.e., Operations Supervisor (Ops Sup) and Stand-by Duty Officer (SDO). The chain of supervision begins with the OG/CC, through the SOF, down to the individual squadron supervisors. Specific duties and responsibilities of each are defined later in this instruction. Paragraph **3.** specifies the requirements for each position.

2. Operations Supervisors:

2.1. Supervisor of Flying (SOF). When on duty, the SOF is the direct representative of the OG/CC and is the focal point for command and control of flight operations. The SOF is a group-level position and is the OG/CC's representative over-seeing flight operations. Decision authority is delegated to this position to accomplish the mission.

NOTE: SOF is not required for rescue/tactical airlift/mobility/OSA/special operations.

- **2.1.** The 58 OG/CC, 97 OG/CC, 314 OG/CC, and 336 FTG/CC will determine if a wing supervisor of flying (SOF) is required. In these units, if a SOF is not used, either the operations supervisor (Ops Sup) or a duty officer will be on duty in the squadron to handle squadron-unique issues.
- 2.2. Operations Supervisor (Ops Sup). The squadron Ops Sup must be filled by the operations officer, assistant operations officers or senior flight commanders deemed qualified by the squadron commander and approved by the OG/CC. (NOTE FOR ANG/AFRC: OG/CC or Air Operations Officer (AOO) will determine requirements for Ops Sup and will determine the appropriate personnel to fill the Ops Sup position.) Squadron commanders can always fill the Ops Sup position, if available. During local flying operations, an Ops Sup will always be immediately available to the OG/CC, the SOF, command and control (C2) personnel or other supporting agencies to respond to any current operations issues requiring time-sensitive answers, decisions and/or actions.
- 2.2. The Ops Sup is the focal point for decisions affecting all squadron flying operations and will ensure flying operations comply with all applicable directives. Before a flight commander assumes Ops Sup duties, the squadron commander will nominate the individual to the operations group commander (OG/CC) in writing. The OG/CC will establish a training program for flight commanders selected for Ops Sup duties. Once training is complete, the OG/CC will certify the flight commander, in writing, before the individual can perform Ops Sup duties. On a case-by-case basis, and with the OG/CC's approval, flight commanders who have not been trained or certified as an Ops Sup may perform Ops Sup duties. This will allow short-term coverage until a trained and certified Ops Sup can assume Ops Sup duties. When the number of aircraft involved is very small (less than five) and flights occur over a short duration, the OG/CC may, by exception, authorize combining the Ops Sup and the SOF.
- 2.3. Stand-by Duty Officer (SDO). The SDO is a qualified squadron member, designated by the squadron operations officer, who has the authority to make ops-related decisions and recommendations. The SDO is necessary when the squadron has on-going off-station operations. These operations include sorties that do not otherwise qualify as deployed sorties. When on duty, the SDO will be available to the OG/CC, the SOF, C2 personnel and other supporting agencies to respond to squadron operations issues.
- **3.** Supervision of Flying Operations. All levels of flight operations may not require each supervisory position to be manned. A squadron-level supervisor is always required (Ops Sup/SDO), but other factors

enter into the decision if the group-level SOF position should be manned. (NOTE FOR ANG/AFRC: OG/CC or AOO will determine Ops Sup requirements). **Table 1.** outlines the minimum supervision requirements.

Type of	SOF Location	Ops Sup	Location	SDO Location
Operation	All Aircraft 1	Fighter	Non-fighter	All Aircraft
Daily Flying Ops	Duty Location ²	Squadron ³	Available ⁵	N/A
Reduced Flying Ops	N/R	Squadron ³	Available ⁵	N/A
On-Going Off-Station Sorties	N/R	N/R	N/R	Available ⁵
Out of Local Area Ops	N/R	Squadron ³ Available ⁶	Available ⁵	N/A
(Re)Deployment 4 A/C	N/R	Squadron ³	Available ⁵	N/A
(Re)Deployment ≥ 5 A/C	Duty Location ²	Squadron ³	Available ⁵	N/A
Deployed Operations	If required, Duty Location ⁴	Deployed Ops Facility ^{3, 4}	Available ^{4, 5}	N/A
Cross Country Dept/Return	N/R	Squadron ⁷ / Available ⁷	Available ⁵	N/A
Functional Check Flight (FCF)	N/R	Per unit supplement	Per unit supplement	N/A
Air Defense Scrambles	N/R	N/R	N/R	N/R

Table 1. Minimum Flying Unit Supervision Requirements.

Notes:

- 1. SOF is not required for rescue/tactical airlift/mobility/OSA/special operations. ANG/AFRC may combine SOF and Ops Sup duties.
- 2. Duty location as directed by paragraph 10. and unit supplement.
- 3. The designated supervisor will be in the unit operations complex and can be immediately contacted/summoned by telephone, pager, radio or intercom.
- 4. For deployed operations, the detachment commander (DETCO) will coordinate with host base OG for supervision requirements. This may involve integrating into the host base SOF and/or Ops Sup program.
- 5. The designated supervisor can be immediately reached by telephone, pager or radio.
- 6. Extended operations out of local area requires the Ops Sup to be in the squadron until 45 minutes after departure and 45 minutes prior to arrival.
- 7. For cross-country departures, Note 3 applies. For cross-country recoveries, Note 5 applies.

Table 1.

Note 1. The 58 OG/CC, 97 OG/CC, 314 OG/CC, and 336 FTG/CC will determine if a wing SOF is required. If a SOF is not used in these units, either the Ops Sup or a duty officer will be on duty in the

squadron to handle squadron-unique issues.

- 3.1. Types of Operations. Classifying types/levels of flight activity is the basis for designating minimum supervision requirements. The definitions for types of operations that are used in **Table 1.** are:
 - 3.1.1. Daily Flying Operations. Normal or surge operations at the unit's home station (this does not include other types of operations defined below).
 - 3.1.2. Reduced Flying Operations. Operations, scheduled or unscheduled, that occur when majority of the unit is not flying. Under these conditions, OG/CC may direct that the group-level SOF position is not required.
 - 3.1.3. On-Going Off Station Sorties. Missions/sorties that do not takeoff or land at home station.
 - 3.1.4. Out of Local Area Operations. Missions that take off and land at home base but operate outside the local area for extended periods of time. These missions usually have primary emergency landing fields other than home base.
 - 3.1.5. Deployment/Re-deployment. The departure from home station to another location or return to home station from another location.
 - 3.1.6. Deployed Operations. Flight operations away from home station that are part of a deployment, exercise or contingency.
 - 3.1.7. Cross Country Departures/Returns. Aircraft departing from or returning to home station for other than a deployment, exercise or contingency.
 - 3.1.8. Functional Check Flight (FCF). Aircraft launched to ensure it is airworthy and capable of accomplishing its mission.
 - 3.1.9. Air Defense Scrambles. Aircraft launched on a scramble order in an Air Defense/Defensive Counter Air role from an alert posture.
- 3.2. Minimum Supervision Requirements. These are outlined in **Table 1.** for each type of operational requirement. The OG/CC may impose additional requirements depending on local circumstances.

4. Responsibilities of Supervisors:

4.1. OG/CC will:

NOTE: For the purposes of this instruction, the term operations group commander also refers to the designated representative.

NOTE FOR ANG/AFRC: OG/CC or AOO will:

- **4.1.** The OG/CC is responsible for every aspect of the flying environment.
 - 4.1.1. Be responsible for the implementation, direction and execution of the SOF program.
 - 4.1.2. During local flying, be immediately available to the SOF for consultation.
 - 4.1.3. Ensure tenant flying units use host/tenant memorandum of agreement (MOA)/letter of agreement (LOA) to avoid duplication of effort, where appropriate.
 - 4.1.4. Be the final approval authority for unit supplement to this instruction.

- **4.1.5.** (Added) (Airlift, tanker, and special operations/rescue units only) Include guidance in their unit supplements on which SOF functions in the basic instruction and this supplement need to be performed by other agencies or duty positions if they elect to not have a SOF.
- **4.1.6.** (Added) Lead functional teams to ensure each supervisor is adequately trained and certified.
- **4.1.7. (Added)** Ensure adequate means are employed to counter the adverse effects of temperature extremes on crewmembers for airlift, tanker, and special operations/rescue aircraft that require extended ground preparation.

4.2 SOF will:

- 4.2.1. Be on duty when required by **Table 1.** or when directed by the OG/CC.
 - **4.2.1.1.** (Added) Complete the opening/SOF changeover checklist. The opening checklist should include, but is not limited to, confirming the status of home field runways and navigational facilities and conducting a communications check to confirm the operability of hotlines and radios, etc. For specialized undergraduate pilot training (SUPT) and pilot instructor training (PIT), the SOF will also establish a flying status 1 hour before the first launch, as well as confirm the status of auxiliary and alternate airfields.
 - **4.2.1.2.** (Added) Be familiar with each squadron's flying schedule and any special requirements (initial solo, solo out-and-back, air refueling, airdrops, etc.) for that day.
- 4.2.2. Be responsible to the OG/CC for monitoring and supervising all phases of unit flying operations and will provide advice, assistance and recommendations to aircrews, supervisors, command and control personnel and support agencies regarding the safe and efficient conduct of flight operations.
- 4.2.3. Remember that safety is the first priority. If safety is an issue, the SOF has the authority to direct appropriate actions, on behalf of the OG/CC, to correct/prevent unsafe situations. This includes the use of any and all resources to include radios, FM nets, telephone hot lines and all wing-flying operations on the ground or in the air.
- 4.2.4. Prior to the first launch, ensure the airfield status is suitable for safe operations in accordance with (IAW) Air Force, major command (MAJCOM) and local directives.
- 4.2.5. During an emergency or an abnormal situation, provide aircrews with timely advice and assistance to determine a correct course of action to safely recover the aircraft.
- **4.2.5.** When required, designate an aircraft to fly chase. Refer to the checklist at **Attachment 2**, basic publication, for additional information.
- 4.2.6. Be in a position to visually monitor the final approach and landing of in-flight emergency (IFE) aircraft. If unable, the SOF will direct another highly qualified aircrew member to be in position to monitor the landing and provide needed assistance or guidance. (**NOTE FOR ANG/AFRC:** Not required.)
- 4.2.7. Closely monitor the status of primary and emergency airfields and inform aircrews of changes that may affect flight operations.
- **4.2.7.** Also closely monitor the status of the runways and navigational facilities serving the home field, auxiliary fields, ranges, drop zones, etc. Designate alternate airfields (if required).

- 4.2.8. When deteriorating weather conditions affect flying operations, coordinate with wing agencies and utilize all available resources (i.e., weather, radar, tower personnel, pilot reports [PIREPs], etc.) to determine the best course of action for wing aircraft. This course of action could extend to departures and recoveries as well as diverts. The SOF will determine suitability of, assign, and monitor weather alternates. When necessary to ensure safe flight operations, the SOF will coordinate with the air traffic control (ATC) watch supervisor or senior controller for runway changes.
- **4.2.9.** (Added) Maintain a SOF log for recording significant actions and events.
- **4.2.10.** (Added) Advise aircrews of extreme environmental temperatures and ensure flying activities comply with procedures governing operations under extreme heat and cold (Attachment 5 (Added) (AETC) and Attachment 6 (Added) (AETC)).
- **4.2.11. (Added)** Take action to locate any overdue aircraft.
- **4.2.12. (Added)** Brief the replacement SOF on the current situation. Do not change SOFs when an emergency is in progress.
- 4.3. Ops Sup will:
 - 4.3.1. Be on duty when required by **Table 1.**
 - 4.3.2. Be immediately available to assist the SOF.
 - 4.3.3. When the SOF is not qualified in the distressed aircraft, be the primary source of technical assistance.
 - 4.3.4. For multiple mission design series (MDS) squadrons and the SOF and Ops Sup are not qualified in the type of aircraft airborne, schedule a highly qualified crewmember to be immediately available for aircraft technical assistance.
 - 4.3.5. Ensure the SOF is advised of any changes or deviations to the squadron's flying schedule.
- 4.4. SDO will:
 - 4.4.1. Be on duty when required by **Table 1.**
 - 4.4.2. Be available by telecon or radio to respond to any current operational issues requiring time-sensitive answers, decisions and/or actions.
 - 4.4.3. Ensure the SOF is advised of any changes or deviations to the squadron's flying schedule.

5. Responsibilities of Other Key Unit Personnel:

- 5.1. Wing/unit commanders are responsible for an effective SOF program for all assigned and attached units and ensure other group commanders support the OG/CC when and where needed in order to execute an effective program.
- 5.2. Support group commanders are responsible for the maintenance, upgrade and repair of the applicable SOF facilities/equipment.
- 5.3. Logistics group commanders are responsible for maintenance, upgrade and repair of the SOF vehicle.
- 5.4. Squadron commanders ensure an Ops Sup/SDO is on duty when required by **Table 1**.

- 5.5. Command post is responsible for tracking all wing flying activities, both on station and off. Functions as the central source for information during an emergency.
- **NOTE FOR ANG/AFRC:** Single squadron units and units with minimal command post full-time manning may establish procedures for unit SOF and duty desk personnel to track flying activities and be the central source for information during an emergency.
 - **5.6.** (Added) As required by 19 AFI 11-204, *Runway Supervisory Unit (RSU) Operations*, the RSU controller (SUPT only) and crew closely supervise solo student operations and ensure safe and efficient traffic pattern operations. RSU controllers provide senior supervisors with an additional quality check of traffic patterns and landings. They work directly with the SOF to resolve emergency situations safely.
 - **5.7.** During flying operations, the squadron duty desk is the focal point for information and scheduling execution. Operations resource management specialists (or other knowledgeable personnel) certified in duty desk procedures by the squadron operations officer will occupy the desk as specified in the local supplement. **Attachment 7 (Added) (AETC)** lists SOF telephone numbers for AETC bases. **Attachment 8 (Added) (AETC)** lists typical squadron duty desk equipment.
 - **5.8.** The flight commander is the first echelon of command responsible for safely and efficiently scheduling people, missions, and aircraft. The flight commander must know the capabilities and experience levels of all flight members and ensure they fly the right mission at the right time according to the current syllabus and applicable directives. Safety must remain paramount in the flight commander's mind. Flight commanders will also keep the Ops Sup informed of the training plan and any changes.
 - **5.8.1.** Each wing will develop and execute a flight commander training program. Place the program guidance in the local wing supplement to this publication. This training is mandatory before assuming flight commander duties. See **Attachment 9 (Added) (AETC)** for the minimum requirements of the flight commander training program.
 - **5.8.2.** In addition to the wing-level flight commander training program, all AETC flight commanders will attend the AETC flight commander training course. Assistant flight commanders and prospective flight commanders are highly encouraged to attend.
 - **5.8.2.1.** 19 AF will conduct the AETC flight commander training course at least semiannually (normally in January and July). Units will be notified 60 days prior to the scheduled training date. **Attachment 10 (Added) (AETC)** lists the minimum requirements of the AETC flight commander training course.
 - **5.8.2.1.1.** If a flight commander has not previously attended the training, he or she will attend the next available course after taking command. 19 AF/CC is waiver authority for this requirement.
 - **5.8.2.1.2.** If a flight commander misses two opportunities (after assuming the duties of flight commander) he or she will be removed from the position.

6. Handling of In-Flight Emergencies:

6.1. The primary objective during an abnormal/emergency situation is the safe recovery of the aircrew and aircraft. When establishing procedures, units will consider:

- 6.1.1. Providing a single, discrete frequency for recovering an emergency aircraft. ATC and the emergency aircrew should determine when to use a single frequency approach (SFA). The SOF will have access to the SFA and should be available to crash/fire/rescue personnel to monitor the recovery.
- **6.1.1.** In-flight emergency (IFE) aircrews recovering to an RSU-controlled runway will switch to the RSU frequency according to local procedures.
- 6.1.2. Using the command post, or other capable agency, to notify all appropriate agencies and key personnel of an IFE and provide situation updates, allowing the SOF to devote full attention to the emergency.
- **6.1.2.** At the first opportunity, notify the OG/CC of the situation and the radio frequency to be used in the aircraft recovery.
- 6.1.3. Prioritizing actions during concurrent emergencies/abnormal situations.
- 6.1.4. Authorizing direct communications (over discreet SOF or squadron common frequency) from the Ops Sup/SDO to an IFE aircrew, if not qualified in the distressed aircraft. Time permitting, the SOF may also direct the Ops Sup or other highly qualified individual to report to the SOF's duty location during an abnormal situation/recovery. Only ATC personnel may authorize direct communication over ATC frequencies, including the SFA frequency. However, this does not preclude the SOF from using whatever communication necessary, to include GUARD and SFA, to prevent an unsafe situation that could immediately jeopardize safe recovery.
- 6.1.5. That only the on-scene commander, normally the fire chief, can terminate an emergency.
- 6.1.6. That the final decision during any IFE/abnormal situation rests with the aircraft commander. However, the SOF may declare an IFE for any aircraft based on his/her knowledge of the aircraft and the flight and airfield environment.

7. CONFERENCE HOTEL Aircraft Specific Procedures:

NOTE: CONFERENCE HOTEL is now the standard terminology for depot/contractor assistance. CONFERENCE X-RAY, ROUNDTABLE and SKYHOOK are no longer applicable.

- 7.1. These procedures make aircraft specialists accessible to the SOF/aircrew when in-flight situations pose systems-related questions that cannot be answered at the local level. See **Attachment 4** for specific MDS procedures.
- 7.2. Table A4.1. shows the different MDSs and the MDS-specific reference paragraphs.

8. SOF/ATC Relationship:

- 8.1. The relationship between supervisors and ATC must be based on professionalism, trust and teamwork. SOFs represent the OG/CC for the conduct of safe flight operations and mission accomplishment.
- 8.2. The separation and sequencing of traffic are the responsibilities of the watch supervisors and controllers. Unless safety is an issue, the SOF will work directly with the watch supervisor. To promote effective and efficient flight operations, the SOF may suggest, based on knowledge of the flying schedule and unique circumstances of individual missions, actions that affect ATC concerns or desires.

8.3. Except in an emergency, the SOF will not transmit over ATC frequencies without prior coordination with ATC (this does not apply to dedicated SOF frequencies). All radio transmissions to a distressed aircrew, from other than the SOF or ATC, will be coordinated through the SOF.

9. Duty Hours:

- 9.1. Prior to beginning supervisory duties, the SOF will meet crew rest requirements as directed by AFI 11-202V3, *General Flight Rules*, as supplemented.
- 9.2. Maximum crew rest duty day for SOF is 12 hours. Waiver authority for SOF crew rest duty day is OG/CC.
- 9.3. The SOF will be on duty in sufficient time to complete required duties in paragraph **4.2.** and will be in the primary duty location 30 minutes prior to first scheduled takeoff and remain on duty until the last aircraft is shut down.

10. SOF Duty Location:

- 10.1. The OG/CC will designate primary and alternate SOF duty locations. As a minimum, they must have adequate communication equipment and the capability to monitor weather conditions. It is desirable to have a SOF duty position from which ground operations, takeoffs, landings and local traffic patterns can be observed. The designated locations must provide the SOF with timely access to a SOF vehicle and the airfield when required.
- 10.2. The primary SOF location for active fighter units will be in the control tower. See paragraph 16. for ANG/AFRC and smaller than wing-sized units. All SOF duty locations need a OG/CC waiver except:
- **10.2.** The primary SOF duty location for SUPT, PIT (*EXCEPTION:* T-1), and fighter training is the tower. If the SOF is not in the primary duty location, he or she must be available to the OG/CC via handheld radio or cellular phone.
 - 10.2.1. The control tower
 - 10.2.2. The SOF vehicle on the airfield
 - 10.2.3. The runway monitoring unit (RMU)/runway supervisory unit (RSU)
 - 10.2.4. The unit dispatch desk
 - 10.2.5. The command post

11. SOF Equipment:

- 11.1. The communication equipment must be functional and immediately available to the SOF and include:
 - 11.1.1. A dedicated multi-frequency radio (UHF, VHF and/or HF, as appropriate) to contact airborne aircraft.
 - **11.1.1.** For the primary SOF positions located in the tower, the radio will have the capability to be recorded. The SOF will have the capability to monitor ground, tower, and guard frequencies.

- 11.1.2. A telephone (land-line or cellular telephone)/FM radio to contact the OG/CC, command post, Ops Sups/SDOs, weather facility and ATC watch supervisors. Dedicated phone lines (hot-lines) are preferred.
- **11.1.2.** In addition, all primary SOF locations will have telephone hot lines to the WG/CC, home field RSUs (if applicable), auxiliary field RSUs as specified in 19 AFI 11-204 (if applicable), base operations, and applicable air traffic control facilities (as determined by the OG/CC).
- 11.1.3. The minimum equipment for the SOF to communicate with airborne aircraft and the command and control network and monitor ATC.
- **11.1.4.** (Added) At least one Class A telephone line.
- **11.1.5.** (Added) A handheld radio (brick).
- 11.2. An appropriate local weather dissemination system will be available.
- 11.2. The weather dissemination system must have access to a weather radar monitor.
- 11.3. Units are required to have a dedicated SOF vehicle immediately available to the SOF and positioned to respond to emergencies, perform airfield inspections and other official purposes. This vehicle must have a flight line clearance and be equipped with a multi-channel radio capable of contacting unit aircraft and local controllers.
- 11.3. The SOF vehicle will also have a radio to monitor emergency aircraft.
- 11.4. Locally developed checklists will be used outlining procedures for normal and emergency procedures. The required SOF checklists are listed in **Attachment 2**.
- 11.5. SOF dedicated binoculars will be immediately available to the SOF when in the control tower, RSU/RMU or SOF vehicle.
- 11.6. At the discretion of the OG/CC, the SOF will have access to such items as applicable directives/instructions, aircraft T.O.s, checklists, in-flight guides, SOF read/information file, etc. If the SOF repositions to an alternate location, minimum essential equipment will be available (pre-positioned or transported).
- **11.6.** Publications (AFI 11-2MDS-Specific Volume 3 and AFI 11-202, Volume 3, *General Flight Rules*) and aircraft technical orders for each type of aircraft flown in the wing or group will be available to the SOF. Additional requirements will be at the discretion of the OG/CC.
- **11.7.** (Added) An SOF information/read file will be maintained.

12. SOF Qualifications:

- 12.1. All SOF nominees will be experienced, rated officers with proven maturity, judgment and supervisory ability. They must be combat mission ready (CMR)/basic mission capable (BMC) in a unit aircraft and medically qualified to fly. NOTE: Duties not to include flying (DNIF) crewmembers may perform SOF duties when specifically cleared by a flight surgeon (FS).
- **12.1.** All SOFs will be nominated by the squadron commander and certified by the OG/CC. In addition to being combat mission ready (CMR) and basic mission capable (BMC), the SOF will be current in one of the aircraft assigned to the wing.
- 12.2. All SOFs will complete the SOF qualification/upgrade program.

13. SOF Currency/Recurrency. The currency for SOF duties is 90 days (**ANG/AFRC:** 180 days; **AETC ANG/Reserve Associate Instructor Pilots:** 90 days). Individual squadrons will track SOF currencies (Air Force Operations Resource Management System [AFORMS] preferred). To regain currency, as a minimum, accomplish a 1-hour supervised tour with a current and qualified SOF.

14. SOF Upgrade Program:

- 14.1. Squadron commanders will nominate SOF candidates. The OG/CC will screen and review qualifications of all candidates before entry into the upgrade program.
- 14.2. All SOF candidates will receive an interview and briefing from the OG/CC on responsibilities, personal philosophy and expectations.
- 14.3. All upgrading SOFs will become familiar with airfield procedures, primary and alternate duty locations, equipment and local support agencies. The upgrade program will emphasize operating procedures and support provided, specifically capabilities and limitations. Upgrade programs will include:
 - 14.3.1. Weather (to include forecaster duties/priorities) information.
 - 14.3.2. Approach control information.
 - 14.3.3. Tower operation.
 - 14.3.4. Crash/fire/rescue operation.
 - 14.3.5. Explosive ordnance disposal (EOD) operation.
 - 14.3.6. Base ops operation.
 - 14.3.7. Command post operation.
- 14.4. For previously qualified SOFs, the OG/CC may waive applicable upgrade requirements.
- 14.5. The upgrading SOF will accomplish two supervised upgrade tours of two hours a piece (minimum of 4 hours of training time) with a current and qualified SOF. The upgradee will act as primary SOF on his/her second upgrade tour (previously qualified SOFs require only this tour). These tours must include the following:
- **14.5.** For SUPT wings, a qualified SOF will supervise the SOF trainee for a minimum of four 3-hour SOF tours to include an opening tour and one night tour. Accomplish the night tour before performing night SOF duties. All other AETC units will supervise the SOF trainee for a minimum of two 4-hour tours, with one being the opening tour. **NOTE:** For SUPT wings, the OG/CC may certify the trainee SOF to perform day-only SOF duties if all training is complete except for the night tour. After the individual accomplishes a supervised night tour, the OG/CC may remove the night SOF restriction.
 - 14.5.1. Operation of all SOF equipment/radios.
 - 14.5.2. Contact procedures for aircraft and support agencies.
 - 14.5.3. A review of publications and directives available to the SOF.
 - 14.5.4. Operation of SOF vehicle (requires a flight line permit/license).
 - 14.5.5. A familiarity tour of the airfield and discussion of frequently used travel routes.

- 14.5.6. When acting as primary SOF, the upgradee will successfully handle an IFE (actual or simulated).
- **14.5.7.** (Added) Procedures required during normal and emergency operations, such as status changes, weather recalls, changing weather conditions, opposite direction runway/barrier procedures, etc.
- 14.6. All upgrading SOFs will become familiar with the performance aspects and characteristics of all base assigned aircraft.
- 14.7. Upgrading SOFs will accomplish an initial written examination containing a minimum of 25 questions on SOF duties, procedures and responsibilities. Minimum passing grade is 85 percent correctable to 100 percent.
- 14.8. The OG/CC will review upgrade training records and certify upgradees for SOF duties.

15. SOF Continuation Training (CT):

- 15.1. Semi-annual SOF meetings are the usual means to accomplish CT. CCs will be involved in developing meeting agendas and all qualified SOFs are expected to attend. If unable to attend, SOFs will review meeting minutes.
- 15.2. Annually, all SOFs are required to review applicable SOF directives/guidance and receive a briefing from the OG/CC on responsibilities, expectations and commander perspective.
- **16. Provisions for Smaller Than Wing-Sized Units.** The provisions of this paragraph apply to units not directly associated with a typical wing (i.e., geographically separated units/squadrons, detachments, etc.).
 - 16.1. If a unit operates from a location with another organization (i.e., tenant unit), integration into host unit supervisory program should be attempted if operations are compatible. These procedures will be implemented through LOAs/MOAs.
 - 16.2. In these smaller units, supervisory positions are limited based on unit authorizations. At the discretion of the OG/CC (or equivalent), more than one supervisory position may be covered by a single supervisor. However, the responsibilities of the SOF position take priority over all other duties. In these circumstances, establish procedures for others to assist with SOF and ops sup duties/responsibilities if required.

17. SOF Program Administration:

- 17.1. The OG/CC will designate an OPR for the administration of the program.
- 17.2. The OPR will:
 - 17.2.1. Develop and administer the SOF initial training program.
 - 17.2.2. Develop and administer the SOF qualification test. This is a controlled test of at least 25 questions. It will be updated/reviewed annually.
 - 17.2.3. Retain all initial qualification and continuation training records IAW AFMAN 37-139.
 - 17.2.4. Monitor SOF currencies and continuation training requirements (AFORMS preferred).
 - 17.2.5. Schedule semiannual SOF meetings.

- **17.2.5.** Attendees will include all SOFs, applicable air traffic control representatives, the chief of wing safety, a representative from base weather, the fire chief, and other members as determined by the OG/CC and outlined in the local supplement. The agenda will include a review of procedures and recent situations and emergencies. If available, use tapes of recent emergencies to stimulate discussion.
- 17.2.6. Publish SOF meeting minutes for review by SOFs and other supervisors unable to attend.
- 17.2.7. Develop normal and emergency SOF checklists and review/update annually.
- 17.2.8. Update the SOF publications as required.
- 17.2.9. Be primarily responsible for developing the group supplement to this instruction.

18. Unit Supplement:

- **18.** Do not supplement this paragraph to provide local procedures; instead, supplement the "functional" paragraphs that address the items listed. Forward unit supplements through stan/eval channels to HQ AETC/DOFV for review after publication.
 - 18.1. Each wing/group will supplement this instruction to expand upon basic guidance and incorporate local procedures. Unit guidance cannot be less restrictive than the basic instruction except where specifically permitted. The unit supplement should establish or detail the following items as required:
 - 18.1.1. The unit organization with responsibility for administering the SOF program.
 - 18.1.2. The primary and alternate SOF locations.
 - 18.1.3. Supervision requirements and duty locations for FCFs.
 - 18.1.4. The use (if any), review and maintenance of an SOF Read File(s).
 - 18.1.5. (ANG/AFRC units) Who, other than the wing/CC or OG/CC, can cancel flying?
 - 18.1.6. Local procedures/checklists for SOFs.
 - 18.1.7. Procedures for deployed units to integrate into unit supervision structure.
 - 18.1.8. Procedures (beeper, phone, radio, etc.) for unit command and control personnel to contact unit supervision during flying operations.
 - 18.1.9. Local CONFERENCE HOTEL procedures.
 - 18.1.10. Procedures for documenting and correcting SOF program and equipment deficiencies.
 - 18.1.11. Ops Sup/SDO qualifications, currencies, upgrade programs, crew rest and maximum duty period (if any).
- **19. Waivers.** The operations group commander, unless otherwise stated, is the waiver authority for this instruction. Waivers may be issued for a maximum of 1 year or until this instruction is superseded, whichever occurs first. Forward a copy of any waivers to the numbered air force director of operations (NAF/DO) and the MAJCOM/DOT (or the equivalent). ANG/AFRC units will forward a copy to the active duty NAF/DO with oversight responsibility. ANG units will forward a copy to HQ ACC/XOG.

19. The wing/group SOF functional manager will maintain waivers for 1 year. At that time, the waiver expires or must be reissued by the OG/CC. Forward a copy of all waivers to 19 AF/DO and HQ AETC/DOFV.

MARVIN R. ESMOND, Lt General, USAF DCS, Air and Space Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 11-4, Aviation Service

AFI 11-202V3, General Flight Rules

(ADDED-AETC) References

19 AFI 11-204, Runway Supervisory Unit (RSU) Operations

Abbreviations and Acronyms

ACC—Air Combat Command

AETC—Air Education Training Command

AFB—Air Force Base

AFORMS—Air Force Operations Resource Management System

AFI—Air Force Instruction

AFRC—Air Force Reserve Command

ALC—Air Logistics Center

ANG—Air National Guard

AOO—Air operations officer

ATC—Air traffic control

BMC—Basic Mission Capable

CC—Commander

CMR—Combat Mission Ready

CONUS—Continental United States

CT—Continuation training

DETCO—Detachment commander

DNIF—Duties not to include flying

DSN—Defense switching network

EOD—Explosive ordnance disposal

FCF—Functional check flight

FCIF—Flight crew information file

FM—Frequency modulation

FOUO—For official use only

FS—Flight surgeon

HF—High frequency

IAW—In accordance with

IFE—In-flight emergency

LOA—Letter of agreement

MAJCOM—Major command

MDS—Mission design series

MOA—Memorandum of agreement

N/A—Not applicable

NAF—Numbered air force

NAVAIDS—Navigational aids

NGB—National Guard Bureau

NLT—Not later than

N/R—Not required

NOTAMS—Notices to airmen

OG—Operations group

OG/CC—Operations group commander

OPR—Office of primary responsibility

Ops Sup—Operations supervisor

OSA—Operational Support Airlift

PACAF—Pacific Air Forces

PIREP—Pilot report

POC—Point of contact

RCR—Runway condition reading

RMU—Runway monitoring unit

RSU—Runway supervisory unit

SDO—Stand-by Duty Officer

SFA—Single frequency approach

SOF—Supervisor of flying

SPO—System program office

T.O.—Tech order

UHF—Ultra high frequency

USAF—United States Air Force

USAFE—United States Air Forces in Europe

VHF—Very high frequency

WG—Wing

WG/CC—Wing commander

Addresses

HQ ACC/XOFT

205 Dodd Blvd, Suite 101

Langley AFB VA 23665-2789

(ADDED-AETC) Abbreviations and Acronyms

CP—command post

IMSO—international military student management officer

ITS—index of thermal stress

MWR—morale, welfare, and recreation

PIT—pilot instructor training

SUPT—specialized undergraduate pilot training

UTE—utilization

Attachment 2

SOF PROCEDURAL/EMERGENCY CHECKLIST

A2.1. Procedural Checklist. The SOF will have available a procedural checklist that includes detailed instructions for the following (if applicable):

Table A2.1. SOF Procedural/Emergency Checklist.

Item Number	Item
1	Opening
2	SOF changeover
3	Closing
4	OG/CC notification
5	Aircraft emergency
6	Barrier engagement
7	Emergency divert
8	Weather recall
9	Change of runway
10	Runway closure
11	Anti-hijack
12	Communications search
13	Aircraft dispersal
14	Controlled bailout
15	Hung ordnance
16	Bird condition
17	Controlled jettison
18	Hydrazine spill/exposure
19	Hot brakes
20	Aircraft crash
21	Alert force exercise/scramble (if applicable)
22	Contractor/depot emergency telephone numbers
23	Telephone numbers for applicable regional SOFs
24	Telephone numbers for local FAA flight service, local terminal radar facility, and other local control towers/SOFs

Table A2.1.

Item Number 7. Also include "weather divert."

Item Number 12. Also include "aircraft accountability."

Item Number 14. Also include "precautionary landing (helicopter operations)."

Item Number 25 (Added). Electrical failure/alternate SOF contingency plan.

Item Number 26 (Added). Chase aircraft procedures for aircraft emergencies (if applicable).

Attachment 3

SUPERVISOR OF FLYING CHECKLIST GUIDE

- **A3.1. Normal Procedures.** NOTE: This checklist is an example of a normal checklist. Actual local checklist contents are at the discretion of the unit commander.
 - A3.1.1. Report to duty location 30 minutes prior to first scheduled takeoff.
 - A3.1.2. Review and sign off FCIF/SOF read file.
 - A3.1.3. Review daily flying schedule.
 - A3.1.4. Ensure all ramps, taxiways, runways and appropriate areas are inspected before the first flight of the day (visual inspection by the SOF is not required if airfield management has performed the inspection).
 - A3.1.5. Inspect SOF kit/equipment for currency/operation.
 - A3.1.6. Obtain current information on:
 - A3.1.6.1. Weather:
 - A3.1.6.1.1. Local
 - A3.1.6.1.2. Divert bases
 - A3.1.6.1.3. Operating areas/ranges
 - A3.1.6.1.4. Low-level routes
 - A3.1.6.2. Airfield Status (Local and Divert Bases):
 - A3.1.6.2.1. Active runway
 - A3.1.6.2.2. Barriers
 - A3.1.6.2.3. RCR
 - A3.1.6.2.4. NOTAMs
 - A3.1.6.2.5. Navigational aids (NAVAIDs)
 - A3.1.6.2.6. Airfield lighting
 - A3.1.6.2.7. Bird activity
 - A3.1.6.2.8. Emergency response vehicle status
 - A3.1.7. Brief the OG/CC or his designated representative on the airfield status, weather conditions, divert bases, unusual events and the daily flying schedule.

Attachment 4

CONFERENCE HOTEL PROCEDURES

- **A4.1. CONFERENCE HOTEL Procedures.** CONFERENCE HOTEL procedures have been established so expert technical advice is available to an aircrew, SOF or other supervisor to assist in the recovery of a serious in-flight emergency. These procedures can put the OG/CC, SOF or ops supervisor directly in contact with a representative from Air Logistics Center (ALC) or the contractor.
 - **A4.1.** During local flying, the command post (CP) will assist the SOF as necessary to coordinate emergency response and facilitate CONFERENCE HOTEL conference calls.
- **A4.2. Emergency Assistance Numbers.** The following contractor or ALC numbers provide a link to the most knowledgeable maintenance/engineering personnel for each weapons system. The SOF or other flying supervisor should not hesitate to call the emergency assistance number. Once the terms "placing a CONFERENCE HOTEL call" is expressed, the person receiving the call will put the SOF in contact with the appropriate experts.
- **A4.3.** Call Initiation. To initiate this call, the following information should be provided by the caller:
 - A4.3.1. Indicate you are initiating a (simulated/actual) CONFERENCE HOTEL call for a serious in-flight emergency.
 - A4.3.2. Caller's name/telephone number/base.
 - A4.3.3. Type aircraft.
 - A4.3.4. Nature of problem. In all cases, stress to the person(s) contacted that the problem involves an AIRBORNE EMERGENCY and technical assistance is required.

A4.4. Air Logistics Centers and Their Locations:

- A4.4.1. OC-ALC--Oklahoma City, OK (Tinker AFB)
- A4.4.2. OO-ALC--Ogden, UT (Hill AFB)
- A4.4.3. SA-ALC--San Antonio, TX (Kelly AFB)
- A4.4.4. SM-ALC--Sacramento, CA (McClellan AFB)
- A4.4.5. WR-ALC--Warner Robins, GA (Robins AFB)
- **A4.5. Specific Aircraft Paragraphs.** See **Table A4.1.** for MDS-specific CONFERENCE HOTEL reference paragraphs.

MDS	Para	MDS	Para	MDS	Para
A/OA-10	A4.5.1.	C-130 (all variants)	A4.5.11.	KC-10	A4.5.21.
B-1	A4.5.2.	C-141	A4.5.12.	KC-135	A4.5.22.
B-2	A4.5.3.	E-3	A4.5.13.	RC-135	A4.5.23.
B-52	A4.5.4.	E-4	A4.5.14.	T-1	A4.5.24.
C-5	A4.5.5.	EC-135	A4.5.15.	T-37	A4.5.25.
C-9	A4.5.6.	F-4	A4.5.16.	T/AT-38	A4.5.26.
C-12	A4.5.7.	F-15A/C/E	A4.5.17.	T-43	A4.5.27.
C-17	A4.5.8.	F-16	A4.5.18.	U-2	A4.5.28.
C-21	A4.5.9.	F-117	A4.5.19.		
C-27	A4.5.10.	Helicopters	A4.5.20.		

Table A4.1. MDS-Specific CONFERENCE HOTEL Reference Paragraphs.

Table A4.1.

Add "T-6, A4.5.29. (Added) (AETC)"

A4.5.1. A-10/OA-10:

DUTY HOURS: Call SM-ALC @ DSN 633-6165/6166

NON-DUTY HOURS: Call SM-ALC Command Post @ DSN 633-2751 for:

POCs: Lt Col Nelson, (916) 632-7831

Mr James Coviello, (916) 927-5754

A4.5.2. B-1:

24 HOURS: Call Boeing Deployed Aircraft Communications Center (DACC) at:

<u>DUTY HOURS</u>: DSN: 336-3334

NON-DUTY HOURS: COMMERCIAL: (405) 869-6050

A4.5.3. B-2:

24 HOURS: Call B-2 Support Center at:

COMMERCIAL: (661) 266-5700

Red Phone: 43095

A4.5.4. B-52:

24 HOURS: Call Boeing IN-FLIGHT EMERGENCY 1-800-721-0422

A4.5.5. C-5:

24 HOURS: Call Carl Weaver (770) 494-4004, Non-Duty Hours (770) 992-3208

A4.5.6. C-9:

<u>24 HOURS</u>: Call Mr. Williams DSN 576-6282, Non-Duty Hours (618) 628-3147

A4.5.7. C-12:

DUTY HOURS: Call Raytheon, Madison, MS at (601) 856-2274

POCs: Mr Rick Herzig, ext 561

Mr Ron Paschal, ext 231

NON-DUTY HOURS: Ask for a phone-patch to the POC's home

A4.5.8. C-17:

24 HOURS: Call Boeing at (562) 384-3800 or (562) 384-3802

A4.5.9. C-21:

DUTY HOURS: Call Raytheon, Madison, MS (601)856-2274

POC: Mr Pat Ray, ext 650

NON-DUTY HOURS: Ask for a phone patch to the POC's home

ALTERNATE NUMBER: 1-888-532-7737

A4.5.10. C-27:

DUTY HOURS: Call Chrysler Technology's Airborne Services (CTAS) at Howard AFB, Panama: Com-

mercial: (011) (507) 284-3371; DSN: 313 284-3371

POCs: Mr Keith Belt

Mr John Martin

NON-DUTY HOURS: Call Howard AFB Command Post DSN 284-5663 ask for patch to POC's home.

ALTERNATE PROCEDURE (CONUS): Call CTAS at Waco, TX (817) 867-4022

POC: Mr Ricky Carroll

A4.5.11. C-130 (All Variants: C-130, EC-130E, EC-130H, HC-130):

DUTY HOURS: Call WR-ALC Command Post: DSN 468-6789

POC: Col Butler (C-130 SPO Director): DSN 468-2322

NON-DUTY HOURS: Call WR-ALC Command Post: DSN 468-6789

POC: Col Butler

Lockheed Martin Technical Representative:

Primary: J.T. Chonka (770) 494-7905

Alternate: J.B. Shand (770) 494-3159

A4.5.12. C-141:

24 HOURS: Call WR-ALC Command Post: DSN 468-6789

POC: Mr Scott Rigley DSN 468-9268

NON-DUTY HOURS: (921) 953-3956

ALTERNATE PROCEDURES:

DUTY HOURS: Col Craft DSN 468-6491

NON-DUTY HOURS: (912) 328-3032

Alternate: Mr Walter Porter (404) 494-2458

Non-Duty Hours (404) 422 7293

A4.5.13. E-3:

24 HOURS: Call Boeing IN-FLIGHT EMERGENCY 1-800-721-0422

A4.5.14. E-4:

24 HOURS: Call Boeing IN-FLIGHT EMERGENCY 1-800-721-0422

A4.5.15. EC-135:

24 HOURS: Call Boeing IN-FLIGHT EMERGENCY 1-800-721-0422

A4.5.16. F-4:

DUTY HOURS: Call OO-ALC: DSN 777-6056

NON-DUTY HOURS: Call DSN 867-7575 and ask to be connected to POC:

POCs: Mr Joe McFarlane

Mr Hal Bowcutt

A4.5.17. F-15:

24 HOURS Call St Louis Operator: DSN 693-1110

Ask for Boeing Operator: Comm (314) 232-9999 State: "This is a CONFERENCE HOTEL call"

F-15C POCs: Mr Bath: (314) 232-2426 (work)

Mr Burlingham: (314) 232-1938 (work)

Mr Boudreau: (314) 234-0780 (work)

A4.5.18. F-16:

(Actual emergencies only)

24 HOURS: Call Lockheed Fort Worth Company: DSN 940-1284, Comm (817) 763-2274

POCs: Mr Gwynne

Mr Smith

Mr Worell

Mr Lichty

Mr Reeves

(Inquiries and simulated emergencies)

Lockheed Fort Worth Company Plant Operator: (817) 777-2000

A4.5.19. F-117:

Call LMSW at 1-888-673-1117. During non-duty hours enter the telephone number at which you wish to be contacted, <u>including area code</u>, press the # sign and hang up. If no contact within 5 minutes, contact the following:

POCs: Primary--Mr John Fiore (661) 572-7550. Non-Duty Hours: (805) 581-5170

Secondary--Mr Graham Schwinning (661) 572-7325. Non-Duty Hours: (661) 943-8176; Pager: (888) 434-4082

A4.5.20. H-1/H-3/H-53/H-60:

24 HOURS: Call WR-ALC Command Post: DSN 468-6789

POC: Colonel Mason, Work: DSN 468-2826

A4.5.21. KC-10:

24 HOURS: Call Boeing at (562) 384-3800 or (562) 384-3802

A4.5.22. KC-135:

24 HOURS: Call Boeing IN-FLIGHT EMERGENCY: 1-800-721-0422

A4.5.23. RC-135:

24 HOURS: Call Boeing IN-FLIGHT EMERGENCY: 1-800-721-0422

A4.5.24. T-1:

<u>DUTY HOURS</u>: Call Beechcraft Corporation, Witchita, Kansas. Ask for head of engineering. Commercial (316) 676-7937

NON-DUTY HOURS: Call Beechraft Corporation Security. Commercial (316) 676-5300/5300. Ask for Beechcraft engineers.

A4.5.25. T-37:

DUTY HOURS: Call SA-ALC: DSN 945-4316, ask for POC

NON-DUTY HOURS: Call SA-ALC Command Post: DSN 945-6906

POC: Mr Grossenbacker

FMPO 171 (ask for standby individual)

A4.5.26. T/AT-38:

DUTY HOURS: Call SA-ALC: DSN 945-4316, ask for POC

NON-DUTY HOURS: Call SA-ALC Command Post: DSN 945-6906

POC: Mr Grossenbacker

FMPO 171 (ask for standby individual)

A4.5.27. T-43:

<u>24 HOURS</u>: Call Boeing at DSN 743-5687, commercial (800) 721-0422, or Boeing Aircraft Company, Randolph AFB TX, DSN 487-7881, commercial (210) 652-7881.

A4.5.28. U-2:

<u>DUTY HOURS</u>: Call Beale AFB Command Post @ DSN 368-5750/5705, ask for U-2 Technical Reps or call direct: DSN 368-9186.

NON-DUTY HOURS: Call Beale AFB Command Post @ 368-5750/5705 and ask for POC:

POC: Mr Holtquist

A4.5.29. (Added) (AETC) T-6:

<u>DUTY HOURS</u>: Call Beechcraft Corporation: (316) 676-8778/7937, ask for the head of engineering. <u>NONDUTY HOURS</u>: Call Beechcraft Corporation Security: (316) 676-5300/5301, ask for Beechcraft engineers.

Attachment 5 (Added) (AETC)

INDEX OF THERMAL STRESS (ITS)

- **A5.1. Instructions.** Enter with local dry bulb temperature and dew point temperature. At intersection, read ITS value and zone (**Figure A5.1.** and **Figure A5.2.**). **Figure A5.1.** and **Figure A5.2.** apply only to lightweight flight clothing. The "X" denotes combinations above saturation temperature.
- **A5.2. Procedures.** Base weather determines the ITS zone. The SOF works the ITS zone applicability. Aircrew members have the responsibility to monitor their physical condition and not exceed their capability for safe mission accomplishment. These procedures are only the recommended limits of exposure. Wings are encouraged to develop additional restrictions if mission requirements allow.

A5.2.1. Caution Zone:

- A5.2.1.1. Be alert for symptoms of heat stress.
- A5.2.1.2. Drink plenty of liquids (noncaffeinated).
- A5.2.1.3. Avoid exercise 4 hours prior to takeoff.
- A5.2.1.4. Limit ground operations time to 90 minutes (time outside an air-conditioned environment).
- **A5.2.2. Danger Zone.** In addition to caution zone procedures:
- A5.2.2.1. Minimum recovery time between flights is 2 hours (landing time to next takeoff time).
- A5.2.2.2. Limit ground operations to 45 minutes for fighter and trainer-type aircraft (time outside an air-conditioned environment). If exceeded, minimum recovery time is 1 hour. All others may continue operations when the provisions of paragraph 4.1.7. (Added) of this supplement are met.
- A5.2.2.3. When possible, wait in a cool, shaded area if the aircraft is not ready to fly.
- A5.2.2.4. Complete a maximum of two aircraft inspections (two exterior inspections on initial sorties and one exterior inspection on subsequent sorties for fighters and trainers).
- A5.2.2.5. SUPT solo students may accomplish only one exterior inspection per sortie.

Figure A5.1. Index of Thermal Stress (Dewpoint -1 °C to 22 °C).

			Dewpoint (°C)																						
Dry Bulb Tem p (°C)	Zone	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
23		23	23	23	23	24	24	24	25	25	25	26	26	26	27	27	28	28	29	29	30	30	31	31	32
24		23	24	24	24	24	25	25	25	26	26	26	27	27	27	28	28	29	29	30	30	31	31	32	32
25		24	24	24	25	25	25	26	26	26	27	27	27	28	28	28	29	29	30	30	31	31	32	32	33
26		25	25	25	25	26	26	26	27	27	27	28	28	28	29	29	29	30	30	31	31	32	32	33	33
27		25	26	26	26	26	27	27	27	28	28	28	29	29	29	30	30	31	31	31	32	32	33	34	34

												Dev	vpoi	int	(°C))									
Dry Bulb Tem																									
р (°С)	Zone	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
28		26	26	27	27	27	27	28	28	28	29	29	29	30	30	30	31	31	32	32	33	33	34	34	35
29		27	27	27	27	28	28	28	29	29	29	29	30	30	31	31	31	32	32	33	33	34	34	35	35
30	Normal	27	28	28	28	28	29	29	29	29	30	30	30	31	31	32	32	32	33	33	34	34	35	35	36
31		28	28	29	29	29	29	30	30	30	30	31	31	31	32	32	33	33	33	34	34	35	35	36	36
32		29	29	29	29	30	30	30	30	31	31	31	32	32	32	33	33	34	34	35	35	35	36	36	37
33		29	30	30	30	30	31	31	31	31	32	32	32	33	33	33	34	34	35	35	36	36	37	37	38
34		30	30	31	31	31	31	31	32	32	32	33	33	33	34	34	34	35	35	36	36	37	37	38	38
35		31	31	31	31	32	32	32	32	33	33	33	34	34	34	35	35	35	36	36	37	37	38	38	39
36		31	32	32	32	32	33	33	33	33	34	34	34	35	35	35	36	36	36	37	37	38	38	39	39
37		32	32	32	33	33	33	33	34	34	34	35	35	35	36	36	36	37	37	37	38	38	39	39	40
38		33	33	33	33	34	34	34	34	35	35	35	35	36	36	36	37	37	38	38	39	39	39	40	40
39		33	34	34	34	34	34	35	35	35	35	36	36	36	37	37	37	38	38	39	39	40	40	40	41
40		34	34	34	35	35	35	35	36	36	36	36	37	37	37	38	38	38	39	39	40	40	41	41	42
41	CAU- TION	35	35	35	35	35	36	36	36	36	37	37	37	38	38	38	39	39	39	40	40	41	41	42	42
42		35	35	36	36	36	36	37	37	37	37	38	38	38	39	39	39	40	40	40	41	41	42	42	43
43		36	36	36	36	37	37	37	37	38	38	38	38	39	39	39	40	40	41	41	41	42	42	43	43
44		36	37	37	37	37	38	38	38	38	39	39	39	39	40	40	40	41	41	42	42	42	43	43	44
45		37	37	37	38	38	38	38	39	39	39	39	40	40	40	41	41	41	42	42	43	43	43	44	44
46		38	38	38	38	38	39	39	39	39	40	40	40	41	41	41	42	42	42	43	43	43	44	44	45

Figure A5.2. Index of Thermal Stress (Dewpoint 23 $^{\circ}\text{C}$ to 46 $^{\circ}\text{C}$).

											-	Dev	vpo	int ((°C))									
Dry Bulb Tem p (°C)	Zone	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
23		32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24		33	33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25		33	34	35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

												Dev	vpo	int ((°C))									
Dry Bulb Tem																									
р (°С)	Zone	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
26		34	35	35	36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27	CAU- TION	35	35	36	36	37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28		35	36	36	37	38	38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29		36	36		38	38	39	39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30		36	37	38	38		39	40		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31		37	38		39		40	40		42		X	X	X	X	X	X	X	X	X	X	X	X	X	X
32		38		39	39	40	40		42	42		X	X	X	X	X	X	X	X	X	X	X	X	X	X
33		38		39	40		41		42			44	X	X	X	X	X	X	X	X	X	X	X	X	X
34		39	39	40	40	41	41		43			45			X	X	X	X	X	X	X	X	X	X	X
35		39	40	40	41	41	42		43			45				X	X	X	X	X	X	X	X	X	X
36		40	40	41	41	42	43		44			46				X	X	X	X	X	X	X	X	X	X
37		40	41	41	42	43	43	44	44			46				49	X	X	X	X	X	X	X	X	X
38		41	41	42	42		44		45			47				49	50		X	X	X	X	X	X	X
39	DAN-	41 42	42	42	43	44	44		45			47				50 50		51 52	X 52	X	X	X	X	X	X
	GER								46			48													
41		43	43	44	44		45		46					50				52		54		X	X	X	X
42		43	44	44	45	45	46		47			49				51		53		54			X	X	X
43		44	44	45	45	46	46		47			49				52		53		55	55		X	X	X
44		44	45	45	46	46			48			50			52	52		54		55	56		57	X	X
45		45	45		46	47	47		48			50		52		53		54		55	56			58	
46		45	46	46	47	47	48	48	49	50	50	51	51	52	53	53	54	55	55	56	57	57	58	59	60

Attachment 6 (Added) (AETC)

CHILL INDEX

A6.1. General Instructions. OG/CCs will develop and implement local procedures to protect aircrews at home field and, where feasible, out bases. Deviations to local procedures require OG/CC approval.

A6.2. Limits of Exposure: (See Figure A6.1.)

A6.2.1. Caution Zone:

- A6.2.1.1. Beware of stress due to cold temperatures.
- A6.2.1.2. Limit ground operations to 45 minutes for fighter and primary trainer-type aircraft (time outside a heated environment).

A6.2.2. No Fly Zone:

- A6.2.2.1. Exposed flesh can freeze in 1 minute.
- A6.2.2.2. No flying allowed for fighter and primary trainer type aircraft.

NOTE: The OG/CC will ensure adequate means are employed to protect airlift, tanker, and special operations/rescue crewmembers from the adverse effects of temperature extremes when duty requires extended ground preparation.

Figure A6.1. Chill Index.

Windsp	eed				Tem	perature	(°F)			
Calm	Calm	40	35	30	25	20	15	10	5	0
Knots	MPH			Eq	uivalent	Chill Te	mperati	ure		
3 - 6	5	35	30	25	20	15	10	5	0	-5
7 - 10	10	30	20	15	10	5	0	-10	-15	-20
11 - 15	15	25	15	10	0	-5	-10	-20	-25	-30
16 - 19	20	20	10	5	0	-10	-15	-25	-30	-35
20 - 23	25	15	10	0	-5	-15	-20	-30	-35	-45
24 - 28	30	10	5	0	-10	-20	-25	-30	-40	-50
29 - 32	35	10	5	-5	-10	-20	-30	-35	-40	-50
33 - 36	40	10	0	-5	-15	-20	-30	-35	-45	-55
				Caution				No	Fly	

Attachment 7 (Added) (AETC)

AETC SOF TELEPHONE NUMBERS

- **A7.1.** Altus AFB OK: DSN 866-6313/6314.
- **A7.2.** Columbus AFB MS: DSN 742-7639.
- **A7.3.** Keesler AFB MS: DSN 597-0663.
- **A7.4.** Kirtland AFB NM: DSN 246-9482.
- A7.5. Laughlin AFB TX: DSN 732-5185.
- **A7.6.** Little Rock AFB AR: DSN 731-5487.
- **A7.7.** Luke AFB AZ: DSN 896-5454.
- A7.8. Randolph AFB TX: East Runway, DSN 487-5739; West Runway, DSN 487-2395.
- **A7.9.** Sheppard AFB TX: DSN 736-1802.
- **A7.10.** Tyndall AFB FL: DSN 523-2430.
- **A7.11.** Vance AFB OK: DSN 940-7688.

Attachment 8 (Added) (AETC)

SQUADRON DUTY DESK EQUIPMENT LIST (TYPICAL)

NOTE: The following is a list of typical equipment available to the OG/CC to properly equip unit squadrons to support the SOF and/or the mission of the operations group. The OG/CC will detail, in the unit supplement, the equipment required at each squadron duty desk.

- **A8.1.** Radios, as appropriate (UHF, VHF, etc.), to allow the Ops Sup the capability to monitor emergency aircrew communications with the SOF, while also providing duty desk personnel a frequency for resolving routine aircrew difficulties with squadron aircraft and crews.
- **A8.2.** Telephone hotlines to the SOF, home field RSUs (as applicable), auxiliary RSU (as applicable), base operations, weather, and maintenance control (or equivalent).
- **A8.3.** At least one Class A telephone line.
- **A8.4.** Weather displays to include weather radar monitor. (Weather radar monitor not required if all aircrew receive weather briefings at the base weather facility.)
- **A8.5.** Locally developed procedural and emergency checklists designed to support SOF actions.
- **A8.6.** Publications and aircraft technical orders for squadron aircraft (can be the squadron flight crew information file [FCIF] library).
- **A8.7.** Access to the secondary crash net.
- **A8.8.** Means of displaying airfield and pattern status, barrier position (if applicable), takeoff and landing data (except airlift, special operations/rescue, and tanker units), ITS and chill index, and any other information deemed necessary for mission accomplishment.

Attachment 9 (Added) (AETC)

WING-LEVEL FLIGHT COMMANDER TRAINING PROGRAM

NOTE: The following topics are mandatory for discussion in a flight commander training program. Wings will outline the specifics of their flight commander training program in their supplement to this publication.

- **A9.1.** Command and Control. The OG/CC will outline the overarching principles of the flight commander's responsibilities as a commander, to include:
- **A9.1.1.** Chain of command for policy issues.
- **A9.1.2.** Skip echelon staffing.
- **A9.2. Safety.** The chief of wing safety (or equivalent) will explain the commander's role in mishap prevention including a mishap history and the supervisory view of causes and prevention, to include:

A9.2.1. Mishap History:

- A9.2.1.1. Types and causes.
- A9.2.1.2. Operator factors.
- A9.2.2. Aircrew Discipline.
- A9.2.3. Limited Use Reports.
- **A9.3. Student Management.** The OG/CC will outline the flight commander's responsibilities regarding all phases of student management, to include:

A9.3.1. Syllabus Management:

- A9.3.1.1. Scheduling.
- A9.3.1.2. Student airsickness and manifestation of apprehension.
- A9.3.1.3. Drop on request.
- A9.3.1.4. End-of-phase assessment.
- A9.3.1.5. End-of-course critiques.

A9.3.2. Commander's Awareness Program and Special Monitoring Status (ENJJPT):

- A9.3.2.1. Philosophy and standardization.
- A9.3.2.2. Placement and removal.
- A9.3.2.3. Counseling.

A9.3.3. Commander's Quality Review Process (SUPT only):

- A9.3.3.1. Progress and elimination flight evaluation philosophy.
- A9.3.3.2. Commander's review.

A9.3.4. Merit Assignment Selection System (SUPT only):

A9.3.4.1. Flight commander ranking.

- A9.3.4.2. Calculations and methodology.
- **A9.4.** Runway Supervisory Unit (RSU) Program and Responsibilities (if applicable). The OG/CC will discuss the role of the RSU in daily training and supervision, to include:
- **A9.4.1.** Purpose of the RSU program.
- **A9.4.2.** Selection of controllers and observers.
- **A9.4.3.** Philosophy on traffic pattern operations.
- **A9.5. Supervisor of Flying (SOF) Program.** The OG/CC will discuss the responsibilities of the SOF. This includes being:
- **A9.5.1.** The OG/CC designated representative.
- **A9.5.2.** Primarily responsible for safe conduct of the daily flying operation.
- **A9.6.** International Military Student Management Officer (IMSO). The IMSO will discuss the role of the flight commander in relation to international student training to include the lines of communication between the students, their country, and AETC. This includes:
- **A9.6.1.** International student entries and their cultures.
- **A9.6.2.** Air Force Security Assistance Training program.
- **A9.6.3.** Special activities for international students.
- **A9.7.** Group Stan/Eval. The OG/CC will discuss the group stan/eval functions, to include:

A9.7.1. Flight Evaluations:

- A4.5.28.1. AETC stan/eval program (AFI 11-202, Volume 2/AETC Sup 1, *Aircrew Standardization/ Evaluation Program*).
- A9.7.1.2. Periodic flight evaluations.
- A9.7.1.3. AETC FCIF program.
- A9.7.1.4. Trend analysis.

A9.7.2. Inspections:

- A9.7.2.1. Local, 19 AF, and HQ AETC inspection cycles.
- A9.7.2.2. Self-inspection program.
- **A9.8. Officer Development.** A flying squadron commander will discuss the flight commander's role in the military leadership of subordinates, to include:

A9.8.1. Flight Commander Responsibilities:

- A9.8.1.1. Officer and enlisted performance reports and promotion recommendation forms.
- A9.8.1.2. Air Force and AETC guidance for dress and personal appearance.
- A9.8.1.3. The Air Force weight and fitness programs.
- A9.8.1.4. Alcohol in the squadron.

A9.8.2. Officer Professional Development:

- A9.8.2.1. Professional conduct and relationships.
- A9.8.2.2. Officer and enlisted relationships.
- A9.8.2.3. Instructor and student relationships.
- A9.8.2.4. Career counseling.

A9.8.3. Chain of Command:

- A9.8.3.1. Roles of the squadron commander and the operations officer.
- A9.8.3.2. Relationship to the group, wing, numbered air force, and HQ AETC.
- A9.8.3.3. Lines of communication up and down the chain.
- A9.8.3.4. Flight commander role in punitive and administrative actions.
- **A9.9. Aircraft and Maintenance Utilization.** The OG/CC and the maintenance authority will discuss aircraft utilization, to include:
- A9.9.1. Operations and Maintenance Interaction.

A9.9.2. Wing Scheduling Plan:

- A9.9.2.1. Utilization (UTE) rates.
- A9.9.2.2. Average sortie durations.

A9.9.3. Scheduling Process.

A9.10. Support Issues. The support group commander (if applicable) will explain the relationship of the flight commander to other base agencies, to include:

A9.10.1. Functions of the Support Group:

- A9.10.1.1. Civil engineering.
- A9.10.1.2. Communications.
- A9.10.1.3. Facilities maintenance.
- A9.10.1.4. Social actions.
- A9.10.1.5. Morale, welfare, and recreation (MWR) and services.
- A9.10.1.6. Civilian and military personnel.

A9.10.2. Security Forces:

- A9.10.2.1. Relationship with civil authorities.
- A9.10.2.2. Policies on driving while intoxicated or while under the influence.

A9.10.3. Logistics Group:

- A9.10.3.1. Supply.
- A9.10.3.2. Individual equipment.
- A9.10.3.3. Office supplies and equipment.
- A9.10.3.4. Transportation.

- **A9.11. Medical Issues.** A flight surgeon and aerospace physiology officer will discuss the role of the medical and physiological functions of the wing, to include:
- **A9.11.1.** Scheduling physicals and physiological training.
- **A9.11.2.** Duties not to include flying (DNIF) policies.
- **A9.12.** Legal Aspects of Command. A representative from the legal office will outline commander responsibilities and options according to applicable military and civilian instructions, to include:
- A9.12.1. Uniform Code of Military Justice.
- **A9.12.2.** Commander Options:
- A9.12.2.1. Administrative:
- A9.12.2.1.1. Letter of reprimand.
- A9.12.2.1.2. Counseling.
- A9.12.2.2. Punitive:
- A9.12.2.2.1. Article 15.
- A9.12.2.2.2. Court martial.
- A9.12.2.3. Drug and alcohol abuse.
- A9.12.2.4. Policy and objectives.
- A9.12.2.5. Drug testing program.
- A9.12.3. Equal Opportunity and Treatment.
- A9.12.4. Loss or Damage of Government Property and Report of Survey.
- A9.12.5. Authorized Fundraising Activities.
- A9.13. Wing and Group Commander Topics.

Attachment 10 (Added) (AETC)

AETC FLIGHT COMMANDER TRAINING COURSE

NOTE: The following topics will be discussed in the flight commander training program.

A10.1. Command Structure. Discuss the relationship between HQ AETC, 19 AF, and the wings and squadrons.

A10.2. AETC/CC Philosophy.

A10.3. 19 AF/CC Philosophy.

A10.4. Leadership:

A10.4.1. Setting goals.

A10.4.2. Communication.

A10.4.3. Motivating troops.

A10.4.4. Total force leadership.

A10.4.5. Professional relationships.

A10.5. Career Development:

A10.5.1. Officer promotions.

A10.5.2. Enlisted issues.

A10.6. Safety:

A10.6.1. Operational risk management.

A10.7. AETC Strategic Plan.

A10.8. Inspector General:

A10.8.1. Fraud, waste, and abuse.

A10.9. Public Affairs Primer.